CLAIM AMENDMENTS

Claim 1 (currently amended) A luminal force measurement device to assess pelvic floor muscle function for diagnosis or for treatment of an individual comprising:

a cylindrical probe having a section insertable into a body lumen, wherein said insertable section is disposable or is non-disposable, and a non-disposable section connected thereto;

a plurality of force transducers and a plurality of stimulation electrode pairs wherein each of said electrode pairs is in proximate relationship to one of said force transducers and wherein said force transducers and said pairs of stimulation electrodes are disposed annularly around the insertable section of said probe;

~~a plurality of stimulation electrode pairs;~~

a plurality of differential instrumentation amplifiers; and

a means of holding said probe in position within the body lumen.

Claim 2 (original) The luminal force measurement device of claim 1, further comprising depth index markings on said disposable insertable section or on a sheath covering said non-disposable insertable section indicating depth of insertion into said body lumen.

Claim 3 (original) The luminal force measurement device of claim 1, wherein said insertable section of said probe comprises a rigid or a compliant material.

Claim 4 (original) The luminal force measurement device of claim 1, further comprising:

an interface unit, said unit comprising

a second stage of force transducer signal amplification;

gain and DC offset adjustment;

electrical stimulation signal generation;

analog-to-digital conversion; and

means for connecting said interface to a control computer.

Claim 5 (original) The luminal force measurement device of claim 4, wherein said interface unit is battery powered and the control computer is a battery powered portable computer.

Claim 6 (original) The luminal force measurement device of claim 4, wherein said means for connecting said probe to the control computer is via a standardized serial port, a standardized parallel port, a standardized wired communication path, or a standardized wireless communication path.

Claim 7 (original) The luminal force measurement device of claim 1, wherein said means to hold the probe in position comprises:

an examination platform; and

a probe holder, wherein said probe holder is detachable from said examination platform.

Claim 8 (original) The luminal force measurement device of claim 7, wherein the non-disposable section of said probe connects to the probe holder.

Claim 9 (original) The luminal force measurement device of claim 7, wherein said examination platform comprises:

a first section;

a second section, comprising said detachable probe holder;

a handle at a first end of each of said first and second sections; and

a hinge connecting a second end of each of said first and second sections.

Claim 10 (original) The luminal force measurement device of claim 9, wherein said hinged sections fold into an adjacent and a parallel relation such that said examination platform may be carried by said handles.

Claim 11 (original) The luminal force measurement device of claim 9, wherein an upper surface of said first and second sections is padded.

Claim 12 (original) The luminal force measurement device of claim 7, wherein said probe holder is detached from said examination platform prior to folding said platform.

Claim 13 (original) The luminal force measurement device of claim 7, wherein said examination platform is placed on a bed, on an examining table or mounted to a wall for use.

Claim 14 (original) The luminal force measurement device of claim 7, wherein prior to securing said probe within said probe holder, said probe is movable within said probe holder to adjust tilt and penetration of said probe within the individual.

Claim 15 (original) The luminal force measurement device of claim 1, wherein said means to hold the probe in position is a multiposition probe stabilizer, comprising:

a probe base connection housing having a connector for said probe; and axial displacement sensors connected to said probe to detect displacement of said probe from an axis along the length of said probe, said probe inserted within a body lumen.

Claim 16 (original) The luminal force measurement device of claim 15, wherein the non-disposable section of said probe connects to the connector in said probe base connection housing.

Claim 17 (original) The luminal force measurement device of claim 15, said probe base connection housing further comprising:

a calibrated spring system resistant to the axial displacement of said probe within the body lumen.

Claim 18 (original) The luminal force measurement device of claim 15, further comprising:

a connection housing holder attachable to said probe base connection housing, comprising:

a cross-member having a spring therein, said connection housing attachable thereto; and

a support structure at each end of said cross-member, said support structure having a surface against which an inner thigh of an individual is positioned.

Claim 19 (original) The luminal force measurement device of claim 18, further comprising a removable pad disposed between said supporting structure and the inner thigh of the individual.

Claim 20 (original) The luminal force measurement device of claim 1, wherein said force transducers and said stimulation electrode pairs are contained on a disposable sheath, each of said electrode pairs in proximate relationship to one of said force tranducers, said sheath removably covering the insertable section of said cylindrical probe, wherein said insertable section is non-disposable.

Claim 21 (original) The luminal force measurement device of claim 1, wherein said force transducers and said stimulation electrode pairs are permanently affixed to the insertable section of said probe, each of said electrode pairs in proximate relationship to one of said force tranducers, wherein said insertable section is disposable.

Claim 22 (original) The luminal force measurement device of claim 1, wherein said force transducers and said pairs of stimulation electrodes are disposed annularly in a single row around the insertable section of said probe.

Claim 23 (original) The luminal force measurement device of claim 1, wherein said force transducers and said pairs of stimulation electrodes are disposed annularly in multiple rows around the insertable section of said probe.

Claim 24 (original) The luminal force measurement device of claim 1, wherein said force transducers are strain gauges, piezoelectric sensors, optical sensors, pneumatic mechanisms, or resistive or pressure sensors.

Claim 25 (original) The luminal force measurement device of claim 1, wherein said force transducers have a directional component for measurable radial force.

Claim 26 (original) The luminal force measurement device of claim 1, wherein said differential instrumentation amplifiers are located on the non-disposable section of said probe.

Claim 27 (original) The luminal force measurement device of claim 1, wherein the tip of said insertable section of said probe is rounded.

Claim 28 (original) The luminal force measurement device of claim 1, wherein said probe has a diameter of about 1.5 cm to about 2.5 cm and wherein said force transducers and said stimulation electrodes are positioned about 5cm from the tip of the insertable section of said probe.

Claim 29 (original) The luminal force measurement device of claim 1, wherein said probe has a diameter of about 0.75 cm to about 1.5 cm and wherein said force transducers and said stimulation electrodes are positioned about 2 cm from the tip of the insertable section of said probe.

Claim 30 (original) The luminal force measurement device of claim 1, wherein said probe is positioned intravaginally or intrarectally.

Claim 31 (original) The luminal force measurement device of claim 1, wherein said probe has a total length of at least 20 cm.

Claim 32 (original) The luminal force measurement device of claim 1, wherein said stimulation electrodes are used as electromyography electrodes simultaneously with pressure measurements.

Claims 33-35 (canceled)